

I Claim:

- 1 1. A pipe fitting comprising:
2 a run tube including a cylindrical wall defining a first end opening, a second end
3 opening, and an elongated throat opening;
4 a branch tube fitting defining a fluid passage; and
5 a tapered throat section coupled between said elongated throat opening and said branch
6 tube fitting.
- 1 2. A pipe fitting according to Claim 1, wherein said first end opening is parallel to said
2 second end opening.
- 1 3. A pipe fitting according to Claim 1, wherein said throat opening extends a majority of
2 the length of said run tube.
- 1 4. A pipe fitting according to Claim 1, wherein at least one of said first end opening and
2 said second end opening include a fitting for coupling said at least one of said first end opening
3 and said second end opening to a piping system.
- 1 5. A pipe fitting according to Claim 4, wherein said fitting of said at least one of said first
2 end opening and said second opening comprises a flange.
- 1 6. A pipe fitting according to Claim 5, wherein said at least one of said first end opening
2 and said second end opening defines a collar, said collar adapted to retain said flange about said
3 at least one of said first end opening and said second end opening.
- 1 7. A pipe fitting according to Claim 1, wherein a branch tube is interposed between said
2 throat section and said branch tube fitting.

1 8. A pipe fitting according to Claim 7, further including a collar around said branch tube
2 and adapted to couple said branch tube fitting to a piping system.

1 9. A pipe fitting according to Claim 1, wherein said branch tube fitting comprises a
2 flange.

1 10. A pipe fitting according to Claim 1, wherein the cross sectional area of said
2 elongated throat opening is at least 1.25 times greater than the cross sectional area of said fluid
3 passage.

1 11. A pipe fitting according to Claim 1, wherein said pipe fitting is adapted for use in a
2 winery piping system.

1 12. A pipe fitting according to Claim 11, wherein said pipe fitting is fabricated from
2 stainless steel.

1 13. A pipe fitting according to Claim 1, wherein:
2 said throat section includes a front wall and a back wall; and
3 said front wall and said back wall are tangentially coupled to said run tube.

1 14. A pipe fitting according to Claim 13, wherein:
2 a branch tube is interposed between said throat section and said branch tube fitting; and
3 said front wall and said back wall are coupled to said branch tube.

1 15. A pipe fitting according to Claim 13, wherein said front wall and said back wall are
2 flat.

1 16. A pipe fitting according to Claim 1, wherein said throat section includes a first side
2 wall and a second side wall, said first side wall and said second side wall each defining a radius
3 of curvature between said run tube and said branch tube fitting.

1 17. A pipe fitting according to Claim 16, wherein:

2 said fluid passage is generally circular; and

3 said radius of curvature is at least 1.5 times the diameter of at least one of said first end

4 opening, said second end opening, and said fluid passage.

1 18. A pipe fitting comprising:

2 a body defining a generally triangular inner chamber; and

3 three connectors, each coupled to a respective corner of said triangular chamber for

4 providing fluid communication with said chamber.

1 19. A pipe fitting according to Claim 18, wherein said body defines three fluid passages,

2 each of said fluid passages in fluid communication with a respective one of said connectors.

1 20. A pipe fitting according to Claim 19, wherein said body defines a radius of curvature

2 between two adjacent ones of said fluid passages.

1 21. A pipe fitting according to Claim 20, wherein:

2 each of said fluid passages is generally circular; and

3 said radius of curvature is greater than 1.5 times the diameter of a largest one of said fluid

4 passages.

1 22. A pipe fitting according to Claim 20, wherein said radius of curvature is infinite.

1 23. A pipe fitting according to Claim 18, wherein a tube is interposed between at least

2 one of said connectors and an associated corner of said chamber.

1 24. A pipe fitting according to Claim 18, wherein each of said connectors comprises a

2 flange.

1 25. A pipe fitting according to Claim 24, wherein each of said flanges is retained by a
2 collar coupled to said body.

1 26. A pipe fitting comprising:
2 a tube having a cylindrical wall defining a first end opening, a second end opening, and
3 a throat opening;
4 a connector defining a fluid passage; and
5 a throat section coupled between said throat opening and said connector; and
6 wherein a cross-sectional area of said throat opening is at least 1.25 times greater than a
7 cross-sectional area of said fluid passage.

1 27. A pipe fitting according to Claim 26, wherein said cross-sectional area of said throat
2 opening is at least two times greater than said cross-sectional area of said fluid passage.

1 28. A pipe fitting according to Claim 26, wherein said cross-sectional area of said throat
2 opening is at least three times greater than said cross-sectional area of said fluid passage.

1 29. A pipe fitting according to Claim 26, wherein said throat opening is elongated.

1 30. A pipe fitting according to Claim 26, wherein said throat section, in combination
2 with a portion of said tube, forms a generally triangular inner chamber.

1 31. A pipe fitting according to Claim 26, wherein at least one of said first end opening
2 and said second end opening include a connector for connecting said at least one of said first
3 opening and said second opening to a piping system.